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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/713,969 | 11/14/2003 | Kenichi Kawase | 09792909-5716 | 3182 |

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| EXAMINER | |
|---|---|
| WEINER, LAURA S | |
| ART UNIT | PAPER NUMBER |
| 1745 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 03/30/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/713,969 | KAWASE ET AL. | |
| | Examiner | Art Unit | |
| | Laura S. Weiner | 1745 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

### *Double Patenting*

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claim 10 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 5. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### *Claim Rejections - 35 USC § 102*

4. Claim 1 is are rejected under 35 U.S.C. 102(e) as being anticipated by Yasukawa et al. (US 2006/0172201).

Yasukawa et al. teaches a battery comprising a nonaqueous electrolyte comprising at least one phosphate and a vinylene carbonate compound and/or a vinylethylene carbonate compound and at least one compound selected from a cyclic amide, a cyclic carbamate compound or a heterocyclic compound. Yasukawa et al. teaches on page 5, [0046-0047], that the vinylene compound and/or the vinylethylene carbonate compound is preferably in the range of 0.1-15 wt%. Yasukawa et al. teaches on page 9, [0085, 0087], that the anode materials may include one or more metals such as Si, Sn, etc. and that the substrate of the current collector is made of a metal such as copper foil, nickel or stainless steel. Yasukawa et al. teaches on page 10, [0091], that the positive electrode comprises LiMnO2, LiMy2, etc.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Mie et al. (US 2004/0106047).

Mie et al. teaches in the claims, a nonaqueous electrolyte secondary battery comprising a positive electrode, a negative electrode and a nonaqueous electrolyte. Mie et al. teaches on page 2, [0031-0032], that the negative electrode can use metal materials such as Si, an Si-Ni alloy or an Sn-Ni alloy singly or in combination with the carbonaceous material. Mie et al. teaches on page 4, [0055], a nonaqueous electrolyte comprising 2 parts by weight of VEC to 100 parts of GBL. Mie et al. teaches on page 6, [0077], that the positive electrode comprises LiCoO2.

***Claim Rejections - 35 USC § 103***

6. Claims 2-10, 11-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yasukawa et al. (US 2006/0172201).

Yasukawa et al. teaches a battery comprising a nonaqueous electrolyte comprising at least one phosphate and a vinylene carbonate compound and/or a vinylethylene carbonate compound and at least one compound selected from a cyclic amide, a cyclic carbamate compound or a heterocyclic compound. Yasukawa et al. teaches on page 5, [0046-0047], that the vinylene compound and/or the vinylethylene carbonate compound is preferably in the range of 0.1-15 wt%. Yasukawa et al. teaches on page 9, [0085, 0087], that the anode materials may include one or more metals such as Si, Sn, etc. and that the substrate of the current collector is made of a metal such as copper foil, nickel or stainless steel. Yasukawa et al. teaches on page 10, [0091], that the positive electrode comprises LiMnO2, LiMy2, etc.

In the event any differences can be shown for the product of the product by process claims 2-3 11-12, as opposed to the product taught by Yasukawa et al., such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. *In re Thrope 227 USPQ 964; (Fed. Cir. 1985).*

With respect to the product by process claims 2-3, 11-12, the determination of patentability is based upon the product itself not upon the method of its production. *In re Thrope 227 USPQ 964; In re Brown 173 USPQ 685; In re Bridgeford 149 USPQ 55;*

*In re Wertheim 191 USPQ 90.* Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the Examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the Applicants to establish that their product is patentably distinct. *In re Brown 173 USPQ 685 and In re Fessmann 180 USPQ 324.*

7. Claims 2-4, 7-9 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mie et al. (US 2004/0106047).

Mie et al. teaches in the claims, a nonaqueous electrolyte secondary battery comprising a positive electrode, a negative electrode and a nonaqueous electrolyte. Mie et al. teaches on page 2, [0031-0032], that the negative electrode can use metal materials such as Si, an Si-Ni alloy or an Sn-Ni alloy singly or in combination with the carbonaceous material. Mie et al. teaches on page 4, [0055], a nonaqueous electrolyte comprising 2 parts by weight of VEC to 100 parts of GBL. Mie et al. teaches on page 6, [0077], that the positive electrode comprises LiCoO2.

In the event any differences can be shown for the product of the product by process claims 2-3, as opposed to the product taught by Mie et al., such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. *In re Thrope 227 USPQ 964; (Fed. Cir. 1985).*

With respect to the product by process claims 2-3, the determination of patentability is based upon the product itself not upon the method of its production. *In re Thrope 227 USPQ 964; In re Brown 173 USPQ 685; In re Bridgeford 149 USPQ 55; In re Wertheim 191 USPQ 90.* Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the Examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the Applicants to establish that their product is patentably distinct. *In re Brown 173 USPQ 685 and In re Fessmann 180 USPQ 324.*

8. Claims 11-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohshita et al. (6,511,776).

Ohshita et al. teaches a battery comprising a positive electrode, a negative electrode and a polymer electrolyte containing a nonaqueous electrolyte solution comprising vinylene carbonate in a concentration of 0.1-90 vol%. Ohshita et al. teaches in column 3, lines 40-60, that the electrolyte solution contains vinylene carbonate in a concentration of 0.1-80 vol% or more preferably 0.1-3 vol% and teaches that the solute can be LiPF6, LiBF4, etc. Ohshita et al. teaches in column 4, lines 31-50, that the negative electrode can comprise metal oxides having lower potentials than the positive electrode such as SnO2, SnO, SiO2, SiO, etc. Particularly, in order to further improve the preservation characteristics of the battery, it is preferably to use the metal oxides materials. The reason is that the large surface areas of the metal oxides contribute to

the remarkable effect of the layers and the metal oxides react with the vinylene carbonate in the nonaqueous electrolyte solution to form more stable layers. Ohshita et al. teaches in column 5, lines 24-35, that the positive electrode comprised LiCoO2 and teaches in column 6, lines 15-35, that the positive electrode, the negative electrode was contained in a battery case.

In the event any differences can be shown for the product of the product by process claims 11-12, as opposed to the product taught by Ohshita et al., such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. *In re Thrope 227 USPQ 964; (Fed. Cir. 1985).*

With respect to the product by process claims 11-12, the determination of patentability is based upon the product itself not upon the method of its production. *In re Thrope 227 USPQ 964; In re Brown 173 USPQ 685; In re Bridgeford 149 USPQ 55; In re Wertheim 191 USPQ 90.* Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the Examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the Applicants to establish that their product is patentably distinct. *In re Brown 173 USPQ 685 and In re Fessmann 180 USPQ 324.*

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laura S Weiner
Primary Examiner
Art Unit 1745

March 27, 2007